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Electronic Resource Management Systems From ILS Vendors

Ellen Finnie Duranceau
MIT Libraries, efinnie@mit.edu

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Adventures in Librarianship — Haiku

by **Ned Kraft** (Ralph J. Bunche Library, U.S. Department of State) <kraftno@state.gov>

We were pleased by the many responses we had to our **Annual *ATG* Haiku Contest**. All of the entries were intelligent, many were beautiful, and only a few were obscene, making the job of judging more difficult than you can imagine. This simple format, the haiku, must touch a chord with those of us who labor in knowledge trade, invoking our most sensitive and profound natures.

The award for the Most Metaphysical goes to **Bernadette Babson** from **Cincinnati Public**. Here is her entry, simply titled "Q."

Q is for science,
Not quilt, not quest, nor quag.
Logic obscures Q.

The judges particularly liked **Ms. Babson's** textured imagery and her use of the word "nor."

The Most Practical haiku was submitted by **Fred Warmdover** of **Darkmound University Library**. I think you'll agree that few haiku's reach the level of practicality displayed by **Fred's** "Directions."

Fiction to the back.
Magazines are to your left.
Restrooms are upstairs.

Jackson Froth, the **Pinhead High School** Librarian, submitted "Rickets" which stands as the Most Sentimental entry.

This old monograph
With torn spine, and rust
Reminds me of me.

One can almost feel the dust in ones hand, the acid paper, the drooping buttocks of age. Thank you, **Mr. Froth**, for reminding us of our mortality.

The award for the Most Indignant goes to **Mert Kackle** from the **Fixette College Library**. You

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Electronic Resource Management Systems From ILS Vendors

by **Ellen Finnie Duranceau** (Digital Resources Acquisitions Librarian, MIT Libraries) <efinnie@mit.edu>

Introduction

For several years libraries, especially larger libraries and research libraries, have been more and more desperately seeking systems and tools to help them manage electronic resources. To date, most libraries seeking support for the full life cycle of **Electronic Resource Management (ERM)** from selection through purchase, access, license management, and renewal or cancellation, have had to build their own systems, and many have done so. A list of such homegrown systems is available at the *Web Hub for Developing Administrative Metadata for Electronic Resource Management* at *http://www.library.cornell.edu/cts/elicensestudy/home.html*, maintained by **Adam Chandler** of **Cornell University** and **Tim Jewell** of the **University of Washington**.

In addition to these homegrown systems, commercial sources have emerged to support **ERM**: there are those from third party serial and/or serial data vendors, such as **EBSCO**, **SerialsSolutions**, and **TDNet**; and those from major vendors of integrated library systems (ILS), such as **Innovative Interfaces Inc. (III)**, which has an **ERM** system currently on the market, and other ILS vendors who are in varying stages of developing **ERM** functionality.[1] This article is an overview of the latter market. (I plan to follow this article with one summarizing **ERM** functionality is supported by third party serial and/or serial data vendors, such as **SerialsSolutions**, but that market is not summarized here.) Here, **ERM** is defined as it is by the **Digital Library Federation's Electronic Resource Management Initiative (DLF ERMI)**: "tools for managing the license agreements, related administrative information, and internal processes associated with collections of licensed electronic resources," including ability to present terms of use at the point of access to an eresource. For more information on these guidelines see: *http://www.diglib.org/standards/dlferm02.htm*. This article does not attempt to include link resolver and metasearch or discovery tools, although they could be considered part of **ERM** under some definitions of the term.

The table to follow (see pg.92-93) collates major aspects of the various **ERM** offerings, and was created based on responses to a common set of questions sent to each ILS vendor. Some common themes emerge from this information:

- All of the ILS vendors included here are offering or planning to offer an **ERM** system of some kind.
- All of the ILS vendors offer systems that are designed to carry eresources through the entire life cycle from trial through renewal/cancellation.
- All of the ILS vendors plan for their systems to be integrated into the rest of their own products; all but one (**Dynix**) also expects the system to ultimately be available as a standalone option.
- All of the ILS vendors are attempting to provide user access to licensing information such as terms of use, as well as access information, such as the fact that a resource is not working, although they are offering this functionality in very different ways and on different timetables.
- While each ILS vendor expresses adherence to the guidelines in a different way, all of them acknowledge the major contribution of the **DLF ERMI** guidelines to their design and ongoing efforts. **Ed Riding's** comments (from **Dynix**) seem to reflect a common sense of the debt owed to the work of this group: "We not only acknowledge this talented and dedicated group [the **DLF ERMI**], but most heartily thank them for and congratulate them on this monumental effort."

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Overview of ERM Systems From ILS Vendors

Integrated Library System Vendor:	Dynix	Endeavor	ExLibris	Innovative Interfaces (III)	SIRSI	VTLS
ERM System availability	Horizon ERM module — generally available 4th quarter 2005	Actively developing Meridian; plan to deliver early 2005	Actively developing; Verde being designed with development partners; initial release end 4th quarter 2004	Available; beta test version was available 10/02 to a few partners; general release date was spring 2004	Actively developing functionality, which is expected to be available in 2005	Actively developing VERIFY (VTLS Electronic Resource Information and Funding Utility)
Standalone or Integrated	Integrated: Integrated with other Horizon modules (acquisitions, cataloging, public access etc.)	Either: Currently a web-based utility that integrates with Voyager and ENCompass Digital Library system; plan to offer option to interoperate with other ILSs or be standalone.	Either: Independent product but will tightly integrate with other ExLibris products and third party products	Either	Either: Separate suite of ERM-related products to be introduced in context of overall integrated ILS; will provide integrated functionality whether ILS is SIRSI or other	Either
Operating system/ platform/ Interface	Client presentation layer : Application server running on Linux, windows, or SUN OS; data access layer: range of relational database management system products including Oracle, IBM DB2, Sybase, Mircosoft SQL	Oracle database on Unix and Linux platforms; Staff functionality via Web-based interface	Solaris and Linux platforms; administrative interface is Web-based; End-user access is via OPAC or library portal	Unix or Linux OS on server side; Library can choose III proprietary database structure or Oracle. Graphical User Interface for staff; Java client; Web-based patron interface	Host/server OSs include HP/3000, Unix-HP/UX, Unix-Solaris, Unix-AIX; Windows 2000 or NT; Public discovery tools are Web-based; Staff client is Graphical User Interface	Unix or Lunux OS on server side; Oracle database product. Windows XP or Windows 2000 on client side. Web interface for users; staff access via Windows Graphical User Interface.
Pricing Model	Size and type of library	Did not specify must contact Endeavor for information	FTE based	Size of library	Varies by product(s) and market	Size of library and number of users
Expected Customer Base	Most current interest is from special and academic libraries, but expect large public libraries to follow; focus on Dynix customers	Research indicates most libraries would prefer to purchase from their current ILS provider, so initial focus with Voyager and ENCompass libraries. Anticipate also working with libraries that are not current Endeavor customers	Initial target is the Ex Libris customer base including the 650+ SFX customers in 32 countries; product is applicable beyond this base	Focus on academic libraries; have sold and actively selling as standalone as well as to existing III customer base	All types of libraries; all electronic resource managers (e.g., intranet professionals)	Worldwide; suitable for any size library; not targeted specifically for VTLS ILS customers
"Elevator Speech" — Key distinguishing features as articulated in an imaginary elevator ride with a potential customer	Provides a single place for staff to store ERM information and for staff to check information related to the resource; fully integrated with other Horizon modules and products; easy to implement, as requires no integration with 3rd-party ordering and cataloging systems. Includes a highly flexible approval feature, allowing the library to specify unique decision-makers and approval sequence; interactive with Horizon Information Portal, providing a variety of powerful resource discovery methods, and publishing both title and appropriate use-restriction information to resource users.	Provides all the tools needed to manage the entire lifecycle of an e-resource — stresses integration with other library workflows and systems; eliminates duplication by pulling data from cataloging and acquisition systems; will be part of information delivery strategies such as linking, metasearch	Supports the management and workflows necessary to efficiently select, evaluate, acquire, maintain, renew/ cancel, and provide access to eresources in accordance with their business and license terms. Offers product interdependence and interoperability — SFX, OPACs, A-Z lists, etc. Includes extensive knowledge-base; offers support for consortia; harnesses power of SFX; allows independent acquisition, and licensing, offering the option to specify prevailing terms based on an integration of two different licenses — one for content and one for interface — when the purchase involves two licenses.	User-driven functionality has been the main focus: "customers asked for this and wanted it from III." Brainstormed with librarians before wrote any code; learned that system needs to be active, incorporating many alert services, rather than passively waiting for staff action; incorporates entire workflow for e-resources	"Are you looking to manage expensive licensed resources well and with cost-effectiveness in mind? Do you need to integrate this functionality with print and other assets, as well as your records management system and OPAC? Sirsi can help create a solution for your needs as an administrator and for your end-users needs as information seekers."	Based on DLF specifications, with more than 400 data elements and all 25 data entities from DLF; hierarchical structure in the spirit of FRBR makes easier for users to see how items relate and manage them together; streamlines workflows from trial through access, and renewals; integrates and organizes licensing and access control information

Integrated Library System Vendor:						
	Dynix	**Endeavor**	**ExLibris**	**Innovative Interfaces (III)**	**SIRSI**	**VTLS**
Architecture	A relational database links all resource-related information (e.g., title, order, etc.) to the Resource.	XML resource is keystone of ERM environment.	Underlying data model closely matches that of DLF ERMI. Bib records in MARC 21 or MARC XML.	Built around concept of Resource Record; this is the center of the staff users world. Resource record is related to license description, contacts, titles, vendors, orders, holdings, etc.; these aspects circle around the core resource concept.	Record structure is the same as for existing Unicorn-based record structure and will link and relate to existing structures; will use a new record for storing some e-resource information	Based on DLF ERMI model; hierarchical tree structure of 13 different record types; can view data from several vantage points, e.g., contractual, administrative, title.
Degree of integration with print for staff handling	The same features are used for print and electronic materials; tightly integrated. Processes that are unique to ERM (e.g., robust approval process) occur within the ERM, but can be accessed from outside ERM (but within a Dynix system) via one or two mouse clicks	Amount of integration for display depends on librarys workflows and record management decisions, but system is designed to flexibly handle local variations and will integrate descriptive and acquisitions data into ERM as needed from other [that is, non-Endeavor] systems	Degree of integration depends on local workflow. Batch import and export allows for loading of records from library management system into ERM. ERM can store cost of print related to e-resource.	Integrated from the staff viewpoint; particularly if library uses a single record approach in cataloging; if library uses multiple record approach, lose the at a glance view of all formats but can see listed in browse display	Print and electronic will be fully integrated	ERM records are add-on records to normal processing. Acquisitions processes for print and electronic are the same. Verify can be used with normal acquisition subsystem of VIRTUA ILS
Degree of integration with print for user displays	ERM depends on Horizon Information Portal for much of resource discovery; accommodates libraries with single or separate record approach to cataloging resources	Amount of integration for public display depends on library's workflows and record management decisions	End-user access supplied via OPAC, linkserver, portal, or SFX.	"See Integration with print for staff handling" — integration is same for staff and users	Print and electronic will be fully integrated via the public access client, Sirsi SingleSearch, Sirsi Resolver, and Sirsi Directors Station	Can view with same Web-based interface if using VIRTUA ILS.
Support portal access / A-Z list?	Horizon ERM will produce its own A-Z list or display can be integrated in display of A-Z lists through the information portal, created by third party data e.g., from SerialsSolutions	Supports A-Z list and access to information via portal-type products and ILS etc.	Yes, access is via existing systems, e.g., portal. SFX can generate A-Z list.	Possible to user a portal system, e.g., a federated search engine; possible to search just the e-journal collection; A-Z list can be created at the database / aggregation level but not with individual titles, unless operating as a standalone system	Sirsi SingleSearch federated search product can be used as user's main interface to print and electronic resources, with or without Sirsi ILS; A-Z list of e-journals can include or exclude print titles	Offers A-Z list of ejournals, print, or both; Working on ability to show all providers for one title in same displayby end of summer 2004.
Data Maintenance	A single repository for all ERM information (e.g., license terms, title information, approval status, order information) reduces redundancy of data maintenance; data maintenance also assisted by conformation with industry standards for export and import of ERM resource title, and license information	Flexible interface for importing and building e-resources from disparate data sources and formats	Global knowledgebase will provide regular updates; range of tools for export and import	Maintenance occurs at the URL level through a 2-pronged approach; coverage maintenance can be carried out via a third party provider of data e.g., from TDNet or SerialsSolutions; offer global data update as high-powered catalog tools.	Integration with Unicorn Library Management System reduces data maintenance issues; MARC record sets can be imported and are designed to utilize ONIX XML schemas	MARC record associated with given title stored once and linked to all suppliers that provide the title (FRBR like hierarchy); data can be batch loaded; do have record import/export capabilities
Visibility to users of license terms/rules of use	Information pertinent to library patrons offered in the public display through resource discovery mechanisms in Information Portal via links, buttons, and descriptive information	Yes, terms showed to users whether via OPAC or portal or A-Z list.	Depends on what end-user display is being used by customer. This information is stored in ERM.	High level information provided at bib level, e.g., service outage/ resource advisory note; button click leads to terms of use for holding level	Will be able to generate public notes in Sirsi public client, based on license restrictions, administration restrictions, and free text public notes	Still defining display layouts and options for this information, which is included in entity and data element records
Adherence to DLF guidelines	DLF ERMI has been invaluable to the development of Horizon ERM.	Yes	Yes, ExLibris is on DLF vendor reactor panel	Yes; Worked closely with Tim Jewell of DLF process throughout design	DLF documents have been used as a starting point and were considered helpful and visionary	Yes; considers this a major strength of Verify

Discussion

The information in the table suggests some key distinguishing features among the ILS vendors' **ERM** systems. Different approaches are highlighted in response to a question each vendor was asked: what they would say to distinguish their product from the competition if they had a five-floor elevator ride with a potential customer — the "elevator speech." **Dynix** emphasized complete integration with their other functional modules; **Endeavor** emphasized the support for the full eresource lifecycle and integration with linking and metasearch tools, as well as reducing data duplication by drawing data from cataloging and acquisition systems; **ExLibris** emphasized **Verde's** independence and interoperability with **SFX**, **OPACs**, portals, etc., and their provision of an extensive knowledgebase, support for consortia, and allowance for coordinating the terms of multiple licenses for a single product; **III** emphasized that they built their product based directly on customer needs and requests, and as a result it focuses on proactive workflow strategies, and covers the entire eresource lifecycle; **Sirsi** emphasized integration with the **OPAC** and print resources which will support both staff and user needs; and **VTLS** emphasized adherence to **DLF** guidelines and the integration of access control and licensing information. As with any system, the devil is in the details, but these varying emphases provide one way to take stock of the options evolving in this market.

Integration of ERM functions

A key feature for any library is being able to integrate their access, acquisitions, and cataloging tools to maximize work efficiency. For this reason, many libraries will be predisposed toward the **ERM** support software and tools provided by their own ILS vendor, or vendor of electronic resource access tools such as metasearch or link resolving tools. There may be reasons, however, that a library would not be drawn in the direction of the product offered by their ILS vendor. For example, if a site is expecting to move to a new ILS soon, or operates as a consortium that does not need to integrate functionality, or has other organizational reasons to separate electronic from other workflows, the need for a fully integrated suite of products may not be necessary. In addition, if these ILS vendors develop their standalone options so that import and export functions are highly sophisticated and fluid, the need to purchase all functional areas (**ERM**, **OPAC**, link resolver, metasearch tool etc.) from a single provider to optimize efficiency may not be as significant.

Timing of Availability

For many libraries in need of immediate support for eresource (and particularly license) management, the timing of availability could be a key factor. **III's** system is the only product currently on the market; one, **ExLibris**, is targeting initial release by the end of 2004; the rest are promising availability in 2005.

Extent of adherence to DLF guidelines

All ILS providers indicate they have consulted the **DLF** guidelines, and most suggest they are adhering to them in design, to some degree. The **DLF** documentation could level the playing field for designing systems, since representative libraries have had a chance to publicly document what they need and want in an **ERM**, and all designers have access to this common wealth of information. This seems to offer a strong beginning for the blossoming new market for **ERM** software. However, the way and degree to which these guidelines are followed will undoubtedly vary considerably, and it will still be up to libraries to determine what features are most important to their site and how successful each vendor has been at implementing those features.

Metadata Offered with Software

Providers of **ERM** support can be divided into those that offer eresource management *software* (such as the ILS vendors) and those that offer eresource *data* (such as **SerialsSolutions** or **TDNet**). However, there is overlap between these categories, with at least one ILS vendor supplying data along with software (e.g., **ExLibris**), and some non-ILS companies developing software tools along with the data they are selling (e.g., **SerialsSolutions**). This difference could be significant for libraries in that one would expect the combination of access to data and software in a single source to be efficient and powerful. Like the advantage of full integration from one ILS vendor, though, the details of how each of these systems works to import data from third parties will determine how much of an advantage it will be to have **ERM** data integrated with ERM software from the same source.

Kind of interface

Some libraries may have strong preferences for interface type for either for staff or users to access **ERM** systems and data. What we see here is that the staff interface is either Web based (**Endeavor**, **ExLibris**) or via graphical user interface (**GUI**) (**III**, **Sirsi**, **VTLS**); the user interface for most providers is designed to be Web-based, but there are several exceptions, including **ExLibris**, whose **Verde** system is expected to be accessed via an **OPAC**, metasearch tool, or library portal, but which will not have its own patron interface.

Conclusion

The main conclusion of this market overview is a resounding confirmation that robust tools for eresource management are under development by ILS vendors. By the end of 2005, when most or all of these systems are expected to be available, libraries will be looking at a completely different landscape for **ERM**. With the unusual availability of library-driven guidelines as a foundation for these developing systems, and the prospect of full integration of **ERM** with other acquisition, cataloging, and access functions, we should find ourselves in a vastly different era for productively managing these expensive and important resources.

Please Note: *Unfortunately, I was not able to obtain a response from* ***GEAC*** *regarding their plans, so they are not included here. In addition, I apologize if I have inadvertently missed another major ILS vendor who is offering* ***ERM*** *functionality. — **EFD***

Endnotes

1. Special thanks to the following individuals for the ILS vendors for taking the time to contribute responses for this article:

Ted Fons, Innovative Interfaces, Inc. (III).
Kathryn B. Harnish, Product Manager, Electronic Resource Management, Endeavor Information Systems.
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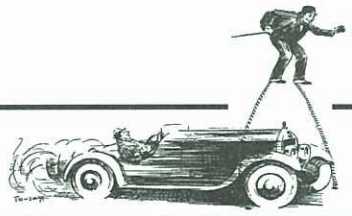
Jenny Walker, ExLibris.
Stephanie Westbrook, Public Relations Manager, Sirsi.



ERMS Race

by **Bob Molyneux** (Director, Statistics and Surveys, US National Commission on Libraries and Information Science; Phone: 202-606-9200) <bmolyneux@nclis.gov>

At **Katina's** behest, I attended the June 26 **Endeavor Digital Breakfast** at the **ALA** meeting in Orlando. What follows is partially a report on that, but it is more a first look at **Electronic Resource Management** (**ERM**) systems. This breakfast was my introduction to these products, but it became clear as I visited exhibitors' booths after this breakfast that there are more vendors coming out with **ERM** products. These products are undergoing development with many questions not yet settled. Expect preliminary products now and a bevy of them by early next year.

Rochelle Ballard, Digital Resources Coordinator at **Princeton** began the substantive talk at the breakfast with a summary of her work managing digital resources at the **Princeton Library** and the database she must maintain about payment, digital rights management information, access rights, use, and so forth about the many electronic publications that **Princeton** subscribes to with their welter of differences in contracts and technical details. It was an excellent, clear, and insightful exposition of the problems that must be managed with these electronic resources. I don't do this kind of work so I found

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